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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,309	05/30/2001	HiroYuki Yamada	MAT-8140US	1614

7590 08/19/2005

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EXAMINER
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EASTHOM, KARL D

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/871,309

Applicant(s)

YAMADA ET AL.

Examiner

Karl D. Easthom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,9-14 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9-14 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The space as claimed is not in the specification, nor is the lowest part of the substrate, which is argued to be inherent in typical trimming operations, as agreed, so that no new matter issues arise.

2. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 5, 9-11, 13-14, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art Fig. 2 (APA). Fig. 2 discloses the claimed invention at applicant's Fig. 2, where it is a chip resistor, with width depicted shorter than its length, with the S section between outermost slits 4, trimming sections the outermost sections 4, and as applicant admits at the top of page 7 of his remarks, laser

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cuts into the substrate inherently caused by the cuts so that that portion is lower. The space at Fig. 2 is defined by only the S portion without the three middle cuts 4, and includes the side sections having the cuts 4 at the ends. The space is on the substrate above and below the S. Thus, the cuts 4 at the end are lower at the trimming portions, since the S portion and space does not include cuts. For claims 2, 5 and 11, the width is less as claimed and seen. For claim 12, two side sections have grooves. For claims 13-14, the S shaped section is free of trimming grooves, as the cuts 4 are not in the S portion but define the S portion. The resistor is connected to each pair of electrodes are along a substantial portion of length of same since the term is one of degree, or it appears from applicant's remarks regarding Figs. 1-2 that the length, along said width of the substrate, means from top to bottom. This interpretation meets claims 21-24. That is applicant admits in his latest argument the limitation meets Fig. 2, which is APA Fig. 2, thus claims 21-24 are also met.

5. Claims 1-2, 5-6, 9-14, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Oberholzer. Oberholzer discloses the claimed invention at Fig. 4, with the single S section on either sides of the gaps 41, 42, ending before the cut 51, and with side sections a thin section adjacent each electrode 16. The resistor is connected to each pair of electrodes are along a substantial portion of length of the width of the substrate since the term is one of degree and it appears from applicant's remarks regarding Figs. 1-2 that the length along said width means from top to bottom, as noted above; i.e., along the substrate width, as claimed. This interpretation meets claims 21-24. Similar to the remarks above, only the S section defines space, where the cuts

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41, 42 are not part of the S section. Then the cut 46 or trimming portion at the side section is the lower part of the substrate. As an alternative, the S section ends before the cut 41 and starts on the right hand side of the cut 46, with a thin side section between the top of the S and the electrode 16. The cut 41 is not in the S part and meets the claim since as applicant admits, cutting creates cuts in the substrate making that part lower. The substrate 14 has a shorter length than a width. The S section is free of trimming sections because the cuts 41 and 42 delineate the S shape, and are not cut into the portion that forms the S shape. The gaps 41, 42 are similar to applicants gap 17. In claims 2 and 5, the part 13 is wider than the S portion. In claim 3, the cut 46 is in the side section. Claims 6, 8 and 9-10 have like elements to those noted. For claim 6, col. 1, lines 5-17 discloses thick film circuits, and there is only one way to make such a circuit, by printing. (For evidence, see Handbook of Thick Film Technology (1976)( thick films are made by screen printing)(Ch. 1, page 1). For claim 11, a side section can be defined as a section adjacent the electrodes without having an edge to define same, with middle portions integrally attached to same. For an alternative to that interpretation, see below.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 5-6, 9-14, and 21-23 are rejected under 35 U.S.C. 102(b) as anticipated by Kiyobumi (JP 09-205004; see machine translation) or, in the alternative,

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under 35 U.S.C. 103(a) as obvious over Kiyobumi (JP 09-205004). Kiyobumi discloses the claimed invention at Fig. 2, with the S section printed and having a trimming section 24. The side sections are connected along a substantial portion of length of the electrodes 22 where the term means more than half as argued. (The S appears backwards but is an S shape or one can flip the chip to render the shape an S). The cut at 34 makes the trimming portion lower for reasons noted above, meeting claims 1, 6 and 11. Or, Fig. 2 meets the claim where the cuts 24 are not part of the S shape for reasons noted above, similar to Fig. 2 of admitted prior art. Then the side sections meets claims 1-2, 5, and 9-11. For claim 6, printing is at pars. 9-13 and the S shaped portion of the resistor 23 is free of trimming grooves since the grooves define the S but are not a part thereof. The space is above and below the resistor 23. As a 103 alternative, where Fig. 2 discloses a substantial length of side sections along the electrode, and where the thicker ends simply provide a smaller resistance, so that it would have been obvious to employ thicker ends to have a resistance closer to a square resistor and to decrease the resistance, see par. 8-12. For claim 12, there are trim cuts 24 in each side section, and for claim 13, the S itself has no trimming grooves, it is defined by the trimming grooves. Applicant admits, as noted above, that the cuts also cut the substrate as is well known, and such cuts would have been obvious if argued not to be inherent, since the full cuts through the substrate ensure that the resistor is cut.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Fig. 2 or Kiyobumi (JP 09-205004, see machine translation). APA and

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Kioybumi Fig. 2 admits of the claimed invention, as discussed in the specification, and as noted above, except twice the thickness. The S shaped section has varying thicknesses, and it would have been obvious to render one of those so that the side sections is twice that width where the side section appears roughly or virtually twice that at certain sections because, width and length are related to resistance so that varying the position of the cuts 4 to be a little different in order to change the resistance would have been obvious where the whole purpose of trimming is to vary the resistance a little.

9. Applicant's arguments filed 7/5/05 have been fully considered but they are moot or persuasive only as to claims 18-20. Primarily, the claims are allowable since the prior art does not have the highest levels of said substrate lower at said trimming portions than at said space as claimed in the claimed combination having the side sections along a substantial portion of said length. Applicant argues that the along a majority of length is not met by Oberholzer or admitted prior art (APA) Fig. 2. However, applicant states that applicant's Figs. 1-2 discloses the feature. If this is so then Oberholzer meets the claim 2 because Figs. 1-2 are much like Oberholzer and the Examiner cannot see the distinction. It appears that the claim has the length of the electrodes running parallel to the width of the substrate, which is what applicants Figs. 1-2, with Fig. 2 admitted prior art, showing, so that with "substantial" taken to be as argued as over a majority, the claim must be met.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (571) 272-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE